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10/538,426	06/10/2005	Kazuhiro Yagishita	CU-4247 RJS 3191	
²⁶⁵³⁰ LADAS & PAI		EXAMINER		
224 SOUTH MICHIGAN AVENUE			GOLOBOY, JAMES C	
SUITE 1600 CHICAGO, IL 60604			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/538,426	YAGISHITA, KAZUHIRO			
Office Action Summary	Examiner	Art Unit			
	James Goloboy	1714			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended peniod for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
Responsive to communication(s) filed on 10 Ju This action is FINAL . 2b)⊠ This Since this application is in condition for allowant closed in accordance with the practice under E	action is non-final.				
Disposition of Claims					
4) Claim(s) 1-8 is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) 1-8 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or Application Papers 9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access that any objection to the objection to the objection may not request that any objection to the objection is objection.	r election requirement. r. epted or b)⊡ objected to by the B				
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
Attachment(s) 1) ☒ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 8/15/05 & 4/5/06.	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ite			

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of copending Application No. 11/048,441 in view of Carrick (U.S. PG Pub. No. 2004/0102335).

Claims 1-2 of the '441 application recite a composition containing a metal salicylate detergent meeting the limitations of the salicylates of claims 1-3 of the current application. Claim 4 of the '441 application recites a salicylate with a metal ratio overlapping the range recited in claim 4 of the current application, and claim 5 recites a

salicylate with a metal ratio falling within the range recited in claim 4 of the current application. The antiwear agent in claim 1 and the ashless dispersant and antioxidant in claim 11 of the '441 application meets the limitations of claim 6 of the current application, and the lubricating oil composition of claim 1 of the '441 application meets the limitations of claim 7 of the current application. The difference between the '441 application and the currently presented claims is that the '441 application does not disclose a composition comprising an additional detergent.

Carrick, in paragraphs 9-14, discloses a lubricating composition comprising a lubricating oil, as recited in claim 7, and a detergent mixture comprising a metal sulfonate, a metal salixarate, a metal saligenin, and an additional dispersant. The sulfonate, salixarate, and saligenin detergents meet the limitations of component (B) of claim 1, and the sulfonate also meets claim 5. In paragraphs 83 and 88-89, Carrick discloses that the additional detergent can be an overbased metal salicylate. In paragraphs 15-19 Carrick discloses that the composition further includes an antiwear agent, and an antioxidant, as in claim 6, and also a dispersant which is preferably ashless (paragraphs 110, 115), also as in claim 6. Preparing the composition of the '441 application and Carrick meets the limitations of claim 8.

It would have been obvious to one of ordinary skill in the art to add the additional dispersants of Carrick to the lubricating composition of the '441 application, as Carrick teaches in paragraph 8 that use of the detergent mixture can lead to decreased engine wear and corrosion, and also allows for the formulation of compositions containing less sulfur and phosphorus.

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This is a <u>provisional</u> obviousness-type double patenting rejection.

3. Claims 1-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 11/048,573 in view of Carrick.

Claims 1-2 of the '573 application recite a composition containing a metal salicylate detergent meeting the limitations of the salicylates of claims 1-3 of the current application. The antiwear agent in claim 1 and the ashless dispersant and antioxidant in claim 7 of the '573 application meets the limitations of claim 6 of the current application, and the lubricating oil composition of claim 1 of the '573 application meets the limitations of claim 6 of the current application. Claim 1 of the '573 application also discloses that the metal salicylate can be overbased and therefore have a metal ratio of greater than 1, overlapping the range recited in claim 4 of the current application. The lubricating oil composition of claim 1 of the '573 application meets the limitations of claim 7 of the current application. The difference between the '573 application and the currently presented claims is that the '573 application does not disclose a composition comprising an additional detergent.

The discussion of Carrick in paragraph 2 above is incorporated here by reference. The use of the detergent mixture of Carrick in the composition of the '573 application meets the limitations of claims 1-8, and would have been obvious for the reasons discussed in claim 2 above.

This is a provisional obviousness-type double patenting rejection.

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4. Claims 1-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 10/523,566 in view of Carrick.

Claims 1 and 3-4 of the '566 application recite a composition containing a metal salicylate detergent (component A of claim 1) meeting the limitations of the salicylates of claims 1-3 of the current application. Claim 1 of the '566 application also discloses that the metal salicylate can be overbased and therefore have a metal ratio of greater than 1, overlapping the range recited in claim 4 of the current application. The lubricating oil composition of claim 1 of the '566 application meets the limitations of claim 7 of the current application. The differences between the '566 application and the currently presented claims are that the '566 application does not disclose a composition comprising an additional detergent, or a composition comprising an antiwear agent, ashless dispersant, and antioxidant.

The discussion of Carrick in paragraph 2 above is incorporated here by reference. The use of the detergent mixture and antiwear/ashless dispersant/antioxidant additives of Carrick in the composition of the '573 application meets the limitations of claims 1-8, and would have been obvious for the reasons discussed in claim 2 above.

This is a <u>provisional</u> obviousness-type double patenting rejection.

5. Claims 1-8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 11/462,340 in view of Carrick.

Claims 1-2 of the '340 application recite a composition containing a metal salicylate detergent meeting the limitations of the salicylates of claims 1-3 of the current application. The antiwear agent, ashless dispersant, and antioxidant in claim 1 of the '340 application meets the limitations of claim 6 of the current application, and the lubricating oil composition of claim 1 of the '573 application meets the limitations of claim 6 of the current application. Claim 1 of the '573 application also discloses that the metal salicylate can be overbased and therefore have a metal ratio of greater than 1, overlapping the range recited in claim 4 of the current application. The lubricating oil composition of claim 1 of the '340 application meets the limitations of claim 7 of the current application. The difference between the '340 application and the currently presented claims is that the '340 application does not disclose a composition comprising an additional detergent.

The discussion of Carrick in paragraph 2 above is incorporated here by reference. The use of the detergent mixture of Carrick in the composition of the '340 application meets the limitations of claims 1-8, and would have been obvious for the reasons discussed in claim 2 above.

This is a <u>provisional</u> obviousness-type double patenting rejection.

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Claim Rejections - 35 USC § 112

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6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites a "method for improving the storage stability of a lubricating oil composition" but does not recite any method steps.

Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 9. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carrick (U.S. PG Pub. No. 2004/0102335) in view of Campbell (U.S. Pat. No. 5,415,792).

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Carrick, in paragraphs 9-14, discloses a lubricating composition comprising a lubricating oil, as recited in claim 7, and a detergent mixture comprising a metal sulfonate, a metal salixarate, a metal saligenin, and an additional dispersant. The sulfonate, salixarate, and saligenin detergents meet the limitations of component (B) of claim 1, and the sulfonate also meets claim 5. In paragraphs 83 and 88-89, Carrick discloses that the additional detergent can be an overbased metal salicylate. In paragraphs 15-19 Carrick discloses that the composition further includes an antiwear agent, and an antioxidant, as in claim 6, and also a dispersant which is preferably ashless (paragraphs 110, 115), also as in claim 6. While Carrick discloses that the composition can contain a metal salicylate detergent, Carrick does not disclose the specific metal salicylate of claim 1.

In column 2 lines 11-62, Campbell discloses an overbased alkylated alkyl salicylate suitable for use as a lubrication oil additive. Attention is drawn to the structure presented in column 2 lines 31-39 and description in column 2 lines 40-42, where Campbell teaches that the salicylate may have two alkyl groups, as in the salicylate recited in claim 1, and the alkyl group has from about 15 to about 50 carbon atoms. strongly overlapping the ranges recited in claims 1 and 3. The use of the salicylate detergent of Campbell in the composition of Carrick therefore meets the limitations of

claims 1, 3, and 5-7. Additionally, mixing the components to form the composition meets the method limitations of claim 8.

Campbell teaches in column 4 lines 48-50 that the salicylate preferably has a TBN between 0 and 300. As a detergent with a TBN of 0 has a metal ratio of 1, the range of metal ratios for the detergents of Campbell therefore falls within or overlaps the range recited in claims 4.

It would have been obvious to one of ordinary skill in the art to use the salicylate detergent of Campbell as the salicylate detergent in the composition of Carrick, as Campbell teaches in columns 9-10 (Examples 5-6) that the salicylate imparts dispersancy and hydrolytic stability to the composition.

11. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carrick in view of Chambard (US PG Pub. No. 2002/0082176).

The discussion of Carrick in paragraph 10 above is incorporated here by reference. Carrick discloses a composition meeting the limitations of claim 1, but do not disclose a composition where one of the alkyl groups has fewer than 10 carbon atoms.

In paragraphs 8-11, Chambard discloses a lubricating composition comprising an overbased detergent, which is used for a diesel engine. In paragraphs 36-52 Chambard describes the overbased detergent. In paragraph 52 Chambard discloses that the preferred detergent is calcium salicylate. In paragraph 50 Chambard discloses that the alkyl groups of an alkylsalicylate advantageously contain 5 to 100 carbon atoms, and that when two alkyl groups are present, the average number of carbon atoms in the

alkyl groups is at least 9. Based on this teaching, it would be obvious to one of ordinary skill that when R¹ is a smaller alkyl group (5-9 carbon atoms), R² should be a larger alkyl group (10 or more carbon atoms. Similarly, when R¹ is a larger alkyl group, R² can be a smaller alkyl group. Therefore, the salicylate of claims 2 is rendered obvious by Chambard. In paragraph 43, Chambard discloses that the overbased detergents more preferably have a TBN in the range of 160 to 400. Since a TBN of 0 indicates a metal ratio of 1, detergents having the TBN range taught by Chambard have a metal ratio overlaps or falls within the range recited in claim 4.

It would have been obvious to one of ordinary skill in the art to use the salicylates of Chambard as the salicylates of Carrick, as Chambard teaches that they are oil-soluble salicylates, and useful when the lubricating composition is used for a marine diesel engine.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Skinner (U.S. Pat. Nos. 6,153,565, 6,281,179, 6,417,148, 6,429,178, 6,429,179) discloses compositions comprising multiple detergents, where one detergent is a metal salicylate.

Ryan (U.S. Pat. No. 5,767,045) discloses compositions comprising metal salicylates and additional metal detergents.

Cartwright (U.S. Pat. No. 6,140,282) discloses a mixture of overbased detergents containing at least one salicylate.

The above art is cumulative to the art used in the rejections set forth in paragraphs 10-11.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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